

April 16, 2001

Mr. Wayne Rice  
Mayfield Corporation  
P. O. Box 217  
Wanatah, Indiana 46390

Re: 091-14003  
First Minor Revision to  
FESOP 091-5642-00085

Dear Mr. Rice:

Mayfield Corporation was issued a permit on March 1, 2001 for a van conversion plant. A letter was received on March 1, 2001, requesting the addition of an insignificant activity, which is one (1) natural gas-fired pyrolytic (burn-off) oven with an afterburner, identified as PTR 390, rated at 0.950 million British Thermal Units per hour (mmBtu/hr). This pyrolytic oven will be utilized to remove various coatings from metal objects and is capable of burning a maximum of 20 pounds per hour. Pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The revision consists of incorporating the applicable requirements for the proposed oven

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

## Changes to the FESOP

Revision to the FESOP is as follows (changes are bolded and deletions are struck-through for emphasis):

1. Section A.3 of the FESOP is revised to include the proposed pyrolytic oven. Revision is as follows:

### A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas fired curing oven rated at 2.5 million British thermal units per hour, exhausting at one (1) stack identified as Vent #2;
  - (b) one (1) natural gas fired hot water heater rated at 1.155 million British thermal units per hour, exhausting at one (1) stack identified as Stack #1;
  - (c) one (1) natural gas fired make-up air heater rated at 2.43 million British thermal units per hour;
  - (d) combustion source flame safety purging on startup;
  - (e) closed loop heating and cooling systems;
  - (f) solvent recycling systems with batch capacity less than or equal to 100 gallons;
  - (g) equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment; ~~and~~
  - (h) filter or coalescer media changeout; **and**
  - (i) **one (1) natural gas-fired pyrolytic (burn-off) oven with an afterburner, identified as PTR 390, rated at 0.950 million British Thermal Units per hour (mmBtu/hr). This pyrolytic oven will be utilized to remove various coatings from metal objects and is capable of burning a maximum of 20 pounds per hour.**
2. Since there are applicable requirements for the pyrolytic oven, the following Section D.3 was added in the FESOP:

#### **Facility Description [326 IAC 2-8-4(10)]:**

- (i) **one (1) natural gas-fired pyrolytic (burn-off) oven with an afterburner, identified as PTR 390, rated at 0.950 million British Thermal Units per hour (mmBtu/hr). This pyrolytic oven will be utilized to remove various coatings from metal objects and is capable of burning a maximum of 20 pounds per hour.**

**(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)**

## **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

### **D.3.1 Incinerators [326 IAC 4-2-2]**

**Pursuant to 326 IAC 4-2-2 , the pyrolytic (burn-off) oven shall:**

- (b) **Consists of primary and secondary chambers or the equivalent;**
- (a) **Be equipped with a primary burner unless burning wood products;**
- (b) **Comply with 326 IAC 5-1 and 326 IAC 2;**

- (c) **Be maintained properly as specified by the manufacturer and approved by the commissioner;**
- (d) **Be operated according to the manufacturer recommendations and only burn waste approved by the commissioner;**
- (e) **Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;**
- (f) **Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;**
- (g) **Not emit particulate matter in excess of:**
  - (a) **five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and**
- (h) **Not create nuisance or a fire hazard.**

**If any of the above result, the burning shall be terminated immediately.**

All other conditions of the FESOP shall remain unchanged and in effect. Please attach a copy of this modification and the following revised FESOP pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Aida De Guzman, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments  
APD

cc: File - LaPorte County  
U.S. EPA, Region V  
LaPorte County Health Department  
Northwest Regional Office  
Air Compliance Section Inspector - Rick Massoels  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Minor Revision to a Federally  
Enforceable Operating Permit (FESOP)**

**Source Background and Description**

Source Name: Mayfield Corporation  
Source Location: 9400 West U. S. Highway 30, Wanatah, Indiana 46390  
County: LaPorte  
SIC Code: 3479, 3471  
Operation Permit No.: F091-5642-00085 Issuance Date: June 13, 1997  
Minor Permit Revision No.: 091-14003  
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed a Minor FESOP Revision application from Mayfield Corporation relating to the construction and operation of the following equipment:

- (a) one (1) natural gas-fired pyrolytic (burn-off) oven with an afterburner, identified as PTR 390, rated at 0.950 million British Thermal Units per hour (mmBtu/hr). This pyrolytic oven will be utilized to remove various coatings from metal objects and is capable of burning a maximum of 20 pounds per hour.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
#2	Pyrolytic (Burn-Off) Oven	18	1.5	1,833	900 °F -primary chamber 1600 °F - secondary chamber

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) FESOP No.: F 091-5642-00085, issued on June 13, 1997

**Recommendation**

The staff recommends to the Commissioner that the Minor FESOP Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 1, 2001. Additional

information was received on March 8, 2001.

### Emission Calculations

(a) Pyrolytic (Burn-off) oven :

The following emissions came from the result of the stack tests, which the manufacturer has performed for the unit. The emissions include the burning of the coatings and the combustion of natural gas as a supplemental fuel.

Pollutant	Emissions (pounds/hour)	Emission (tons/yr)
PM/PM10	0.027	0.12
VOC	0.0348	0.15
SO <sub>2</sub>	0.0036	0.016
NO <sub>x</sub>	0.0542	0.237
CO	0.10	0.438

### Potential To Emit for the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.12
PM-10	0.12
SO <sub>2</sub>	0.016
VOC	0.15
CO	0.438
NO <sub>x</sub>	0.237

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

### Justification for the Revision

The proposed oven would not qualify for an Administrative Amendment, although it is an insignificant activity because it triggers new applicable requirements. Therefore, it will be subject to the next level of approval, which is a Minor Permit Revision.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Pyrolytic (burn-off) oven	0.12	0.12	0.016	0.15	0.438	0.237	0.0
Total Emissions	0.12	0.12	0.016	0.15	0.438	0.237	0.0

### County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### State Rule Applicability - Entire Source

- (a) 326 IAC 5-1 (Visible Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Pyrolytic (burn-off) oven

- (a) 326 IAC 4-2-1 (Incinerator)  
This rule, 326 IAC 4-2 establishes standards for the use of incinerators which emits regulated pollutants. The pyrolytic (burn-off) oven shall:
- (1) consist of primary and secondary chambers or the equivalent;
  - (2) be equipped with a primary burner unless burning wood products;

- (3) comply with 326 IAC 5-1 and 326 IAC 2;
  - (4) be maintained properly as specified by the manufacturer and approved by the Commissioner;
  - (5) be operated according to the manufacturer's recommendations and only burn waste approved by the Commissioner;
  - (6) comply with other state and/ or local rules or ordinances regarding installation and operation of incinerators;
  - (7) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases or noxious odors are prevented;
  - (8) not emit particulate matter in excess of:
    - (A) five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
  - (9) not create a nuisance or a fire hazard.
- If any of the above result, the burning shall be terminated immediately.

The pyrolytic oven is in compliance with this rule. The manufacturer guarantees an emission of 0.25 pounds of PM per 1000 pounds of dry exhaust gas corrected to 50% excess air.

- (b) 326 IAC 8 (Volatile Organic Sources)  
There are no rules in article 326 IAC 8 that applies to the pyrolytic (burn-off) oven.

### Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

### Conclusion

The operation of this pyrolytic (burn-off) oven shall be subject to the conditions of the attached **Minor FESOP Revision No.: 091-14003-00085.**

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
OFFICE OF AIR QUALITY**

**Mayfield Corporation  
9400 West U. S. Highway 30  
Wanatah, Indiana 46390**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F091-5642-00085	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: June 13, 1997
1 <sup>st</sup> Minor Permit Revision No.: 091-14003	Pages Affected: 4, 26 Pages Added: 26a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 16, 2001 Original Signed By: Paul Dubenetzky



## SECTION A SOURCE SUMMARY

### A.1 General Information

The Permittee owns and operates a van conversion plant

Responsible Official: Gary Rice  
Source Address: 9400 West U.S. Highway 30, Wanatah, Indiana 46390  
Mailing Address: P. O. Box 217, Wanatah, Indiana 46390  
SIC Code: 3479, 3471  
County Location: LaPorte County  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source, FESOP Program  
Minor Source, PSD Program

### A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) one (1) air atomizing paint spray booth, identified as Booth #1, with a maximum coating rate of 1.0 unit per hour or a maximum process weight rate of 250 pounds per hour, using fiberglass dry filters for overspray control and exhausting at one (1) stack identified as Vent #1; and
- (b) one (1) abrasive blasting room using steel grit, mineral grit, aluminum oxide, glass beads and plastic granules as abrasive media and using dry filters for particulate matter (PM) control.

### A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) natural gas fired curing oven rated at 2.5 million British thermal units per hour, exhausting at one (1) stack identified as Vent #2;
- (b) one (1) natural gas fired hot water heater rated at 1.155 million British thermal units per hour, exhausting at one (1) stack identified as Stack #1;
- (c) one (1) natural gas fired make-up air heater rated at 2.43 million British thermal units per hour;
- (d) combustion source flame safety purging on startup;
- (e) closed loop heating and cooling systems;
- (f) solvent recycling systems with batch capacity less than or equal to 100 gallons;
- (g) equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment; and
- (h) filter or coalescer media changeout.
- (i) one (1) natural gas-fired pyrolytic (burn-off) oven with an afterburner, identified as PTR 390, rated at 0.950 million British Thermal Units per hour (mmBtu/hr). This pyrolytic oven will be utilized to remove various coatings from metal objects and is capable of burning a maximum of 20 pounds per hour.

### A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

**Facility Description [326 IAC 2-8-4(10)]:**

**Insignificant Activities:**

- (i) one (1) natural gas-fired pyrolytic (burn-off) oven with an afterburner, identified as PTR 390, rated at 0.950 million British Thermal Units per hour (mmBtu/hr). This pyrolytic oven will be utilized to remove various coatings from metal objects and is capable of burning a maximum of 20 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.3.1 Incinerators [326 IAC 4-2-2]**

Pursuant to 326 IAC 4-2-2 , the pyrolytic (burn-off) oven shall:

- (a) Consists of primary and secondary chambers or the equivalent;
- (b) Be equipped with a primary burner unless burning wood products;
- (c) Comply with 326 IAC 5-1 and 326 IAC 2;
- (d) Be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) Be operated according to the manufacturer recommendations and only burn waste approved by the commissioner;
- (f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) Be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) Not emit particulate matter in excess of:
  - (1) five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
- (i) Not create nuisance or a fire hazard.

If any of the above result, the burning shall be terminated immediately.

**Appendix A: Emissions Calculations**

Page 1 of 1 TSD App A

**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: Mayfield Corporation****Address City IN Zip: 9400 West U.S. Highway 30, Wanatah, IN 46390****Administrative Amendment No.: 091-14003-00085****Reviewer: Aida De Guzman****Date Application Received: March 1, 2001**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

1.0

8.3

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.008	0.032	0.002	**see below	0.023	0.350

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).